### **TABLE OF CONTENTS**

Program and Contact Information	
Information Age - Appalachia	3
Focus Area One: Access and Infrastructure	3
Focus Area Two: Education and Training	3
Focus Area Three: e-Commerce	3
Focus Area Four: Technology Sector Job Creation	3
Virginia ARC Telecommunications Initiative	
Outcome-Based Implementation	5
Implementation Strategy	5
Required Match	6
Eligible Projects	6
Ineligible Projects	7
Eligible Applicants	7
ARC Resources	7
Proposal Submission	7
Timetable	8
Planning District Commission Review	8
Proposal Format – Planning Project	
SECTION 1 – COVER SHEET	
Section 2 – Project Proposal Summary	9
Section 3 – Project Narrative	
Section 4 – Budget Information	12
Proposal Format – Implementation or System Development/Technical Support	15
Section 1 – Cover Sheet	15
Section 2 – Project Proposal Summary	
Section 3 – Project Narrative	15
Section 4 – Budget Information	19
Appendix A – Proposal Cover Sheet	21
Appendix B – Products and Outcomes	
Goal 1 – Economy	
Goal 1 – Health and Educations.	
Goal 3 - Infrastructure	25
Goal 4 – ADHS System	
Appendix C – Project Summary Template	27
Appendix D – Budget Form	29

ppendix E - Community Telecommunications Planning Guide	
Overview	31
Management Team	32
Needs Assessment	32
Community Education and Training	33
Broadband Infrastructure	34
Network Organization and Operation	35
Marketing the Network	
Conclusion	36

### PROGRAM AND CONTACT INFORMATION

The Appalachian Regional Commission, or ARC, is an independent Federal agency created through the Appalachian Regional Development Act of 1965. ARC's mission is to be an advocate for and partner with the people of Appalachia to create opportunities for self-sustaining economic development and improved quality of life.

Virginia is one of thirteen states in the ARC region. The Appalachian Regional Commission programs, other than the Highway program, are administered in the Commonwealth of Virginia by the Virginia Department of Housing and Community Development. The Virginia ARC Program is managed by:

### William C. Shelton

Director ARC State Alternate

#### Todd M. Christensen

Associate Director ARC Program Manager

Contacts for the 2007 Telecommunications Initiative Program Competition:

#### **Denise Ambrose**

Program Manager (804) 371-7029 denise.ambrose@dhcd.virginia.gov

### **Chris Thompson**

Policy Analyst (804) 371-7056 Chris.Thompson@dhcd.virginia.gov

### **Counties**

Alleghany County Bath County ♦ **Bland County** Botetourt County • Buchanan County Carroll County **Craig County** Dickenson County \* Floyd County Giles County Grayson County □ **Highland County** Lee County Montgomery County □ Pulaski County Rockbridge County Russell County **Scott County** Smyth County □ **Tazewell County Washington County** Wise County Wythe County

### **Cities**

City of Bristol
City of Buena Vista
City of Covington
City of Galax
City of Lexington
City of Norton
City of Radford

Virginia receives funding from the Appalachian Regional Commission on an annual basis and through special initiatives for distribution in these localities. Virginia prepares a State Strategy on an annual basis which guides its use of ARC funding.

- \* This County is designated as a Distressed County by ARC
- ☐ This County is designated as a At-Risk County by ARC
- This County is designated as an Attainment County by ARC
- ♦ This County is designated as a Competitive County by ARC

### **INFORMATION AGE - APPALACHIA**

The Information Age Appalachia program envisions Appalachia as a prosperous and vibrant region with full access to the tools of the Information Age, and possessing the knowledge and capacity to use those tools to compete successfully in the twenty-first-century economy.

The Information Age Appalachia program represents the resolve of the Appalachian Regional Commission to bridge the digital divide in Appalachia. Without intervention the region will continue to fall farther behind the rest of the nation in deploying the technology-based applications required to support future economic vitality.

The focus of Information Age Appalachia is not only on access to infrastructure, but also on applications that use that access. Instead of simply promoting technology by itself, the program seeks to stimulate economic growth and improve the standard of living in the Region through technology-related avenues.

The overall program will support the Commission's four strategic goals by focusing on the following four distinct subject areas:

## Focus Area One: Access and Infrastructure

Broaden the availability of advanced telecommunications services by promoting increased infrastructure investments from both private sector and government sources.

# Focus Area Two: Education and Training

Ensure that the region is supporting today's workforce as well as developing the workforce of tomorrow by integrating technology into K-12 and continuing education programs plus expanding community awareness and training programs.

# Focus Area Three: e-Commerce

Improve the competitiveness of businesses in the region by increasing the adoption of e-commerce practices.

### Focus Area Four: Technology Sector Job Creation

Increase employment in the technology sector for producer and user industries through investment and entrepreneurship support.

Through the program activities supporting these focus areas the Commission hopes to achieve the following outcomes based on the ARC's requested program budget:

Projected Outcomes for the entire ARC region:

- 100,000 households with increased IT capacity
- 5,000 jobs created or retained
- 1,000 businesses with increased IT capacity
- 1,000 government, education, and facilities with increased IT

# VIRGINIA ARC TELECOMMUNICATIONS INITIATIVE

In 2005, ARC introduced the Asset-Based Development Initiative to capitalize on the strengths of the Appalachian Region. Replacing the previous Entrepreneurship and Telecommunications Initiatives, this program seeks to develop the cultural, natural, community, and structural assets of the Region. Virginia will direct funding into two programs, the Virginia ARC Telecommunications Initiative and the Virginia ARC Asset-Based Development Initiative. The Telecommunications Initiative will operate the same as it has since its inception in 2003.

### **Outcome-Based Implementation**

Virginia's ARC Telecommunications Initiative (TI) program will focus on aspects of the overall "Information Age Appalachia" program and will be implemented on an outcome basis. Virginia, along with ARC, views its role as that of an investor. In the outcome context, proposals must demonstrate a direct relationship between intended project efforts and measurable, tangible improvements to the health of the community being served. Proposals must clearly present performance targets, products, and outcomes. Performance targets are the key events and milestones in the implementation of a project. Products are the near-term results of a project, such as the number of participants in training events or number of businesses receiving

assistance. Outcomes are the long-term results of a project, such as the number of new businesses created and the number of new jobs created or retained. ARC TI budgets and contracts must be based on performance targets and products.

### **Implementation Strategy**

Approximately \$170,000 is available in this round of funding for ARC Regional Initiatives. Virginia will fund both Asset-Based Development and Telecommunications Initiative projects from this funding pot. DHCD reserves the option to add additional ARC funds, if available. Final funding figures will be based on Virginia's ARC allocation pending federal budget approval for fiscal year 2007.

Proposals will be accepted for the following project types:

- 1. Planning
- 2. System Development and Technical Support
- 3. Implementation

Applicants may submit proposals that target a single project type or a combination of project types that marries either: a) Planning and System Development and Technical Support, or b) Planning and Implementation. Projects may not target all three of the project types. Applicants submitting for an implementation and/or a system development project must have completed a Regional Telecommunications Plan last

year, and the proposed project must fit within this Plan.

Funding is available for System
Development/Technical Support or
Implementation projects. However, prior to
funding either of these project types,
however, there must be a Community
Telecommunications Plan in place for the
locality / region that will be served by the
proposed project. This Community
Telecommunications Plan must indicate that
the locality has seriously considered its need
and demand for the proposed project and
should follow closely the form as found at
Appendix E.

Funding is also available for Planning projects. The product of the Planning project will be a Community
Telecommunications Plan (see Appendix E). The Community Telecommunications
Plan will identify needs and demand in the community for services related to telecommunications, will reflect consensus with regard to the design of such services, and result in an action plan for implementation along with the identification of appropriate funding sources.

ARC TI investment is limited as follows:

	Distressed	Transitional /	Competitive
		At-Risk	
Planning	\$15,000	\$10,000	\$ 4,500
System Development and Tech.	\$40,000	\$30,000	\$30,000
Support			
Implementation	\$50,000	\$40,000	\$40,000
Total may not exceed:	\$65,000	\$50,000	\$44,500

### **Required Match**

All TI assistance must be matched **dollar for dollar** with local (non-Federal, non-State) funding, except in the following localities:

- Bath County Must provide 70% match for 30% ARC TI
- Dickenson County Must provide 20% match for 80% ARC TI

### **Eligible Projects**

### **Planning**

- Regional Coordination: PDC wide or multi-county
- Public/Private Partnership strategy
- Community Telecommunications Plan

## System Development and Technical Support

- Community Business Training and Education Program
- Establishment of Community Cooperative

- Establishment of E-Village
- Development of community tech support

### Physical Implementation

- Installation of a wireless network
- Installation of a dark fiber loop
- Installation of a co-location facility/ equipment

### **Ineligible Projects**

The following types of proposals will be considered ineligible for 2007 ARC TI funding:

- Those that do not support the ARC goals for the Appalachian
   Telecommunications Initiative, including those targeting assistance for non-local businesses such as the location of branch plants;
- Those that do not present clear outcomes for the ARC TI investment;
- Those that do not add significantly to currently available resources;
- Those that have no relevance to the use of telecommunications infrastructure; or,
- Those that include funding for efforts which exclude potential participants based on factors beyond business interest or skill level, including assistance based on religious affiliation or membership.

### **Eligible Applicants**

Community-based organizations, public and private non-profit organizations, educational institutions, Local Development Districts

(Planning District Commissions), and state and local governmental entities are eligible to apply for ARC TI funding.

### **ARC** Resources

Applicants are encouraged to visit the ARC website at: <a href="www.arc.gov">www.arc.gov</a>. This site contains numerous data sets, research reports, and links to other sources of information.

### **Proposal Submission**

It is strongly suggested that applicants contact DHCD to discuss the submission of their proposal. This discussion will ensure that the applicant's proposed idea is eligible and will provide insight regarding DHCD's investment philosophy on the proposed project. An original and four (4) copies of the proposal must be received or postmarked by 5:00 pm on Wednesday, September 20, 2006.

All proposals must contain direct responses to all required items, must be printed in a font size no smaller than 12 point, and must provide well organized information in the form of complete sentences, proper paragraphs, and bulleted lists, charts and tables, where appropriate. Only relevant attachments should be included.

All proposals should be assembled using a binder clip. Please do not assemble proposals using staples, 3-ring notebooks, or other forms of binding.

Applications must be assembled in the order that is shown in the RFP guidelines, according to sections. Please do not use tabs when assembling applications.

Pages must be numbered for the entire application (to include attachments, budget forms, and so forth). Pages should be numbered continuously throughout the application; do not restart numbering at the beginning of new sections.

### **Timetable**

The Department anticipates completion of proposal reviews by late November 2006. Notice of funding decisions should follow in early 2007. All proposals should include erformance targeting, products, and outcomes which can be achieved within a one year contract. Some long-term outcomes may be projected for up to one year beyond ARC TI contract expiration, but must be tracked. **Proposals should assume the receipt of contracts and initiation of activities by August 2007**. The start date should be projected to be no later than August 1, 2007.

### Planning District Commission Review

Copies of ARC TI Proposals must be provided to the local Planning District Commission (Local Development District). This should be submitted to the PDC no later than September 6, 2006. The purpose of this requirement is to keep the PDC informed of potential projects. The PDCs are also available to assist applicants in developing projects. The PDC role is not to accept, reject, or otherwise screen these proposals.

### Virginia's Planning District Commissions

#### Lenowisco PDC

Mr. Ronald C. Flanary 6913 Duff-Patt Road P.O. Box 366 Duffield, Virginia 24244 Phone: (276) 431-2206

#### **Cumberland Plateau PDC**

Mr. Jim Baldwin P.O. Box 548 Lebanon, Virginia 24266 Phone: (276) 889-1778

#### **Mount Rogers PDC**

Mr. David Barrett 1021 Terrace Drive Marion, Virginia 24354 Phone: (276) 783-5103

#### **New River Valley PDC**

Mr. David Rundgren 6580 Valley Center Drive P. O. Box 21 Radford, Virginia 24141 Phone: (540) 639-9313

#### Roanoke Valley-Alleghany PDC

Mr. Wayne Strickland P. O. Box 2569 Roanoke, Virginia 24010 Phone: (540) 343-4417

#### **Central Shenandoah PDC**

Mr. A. Ray Griffith, Jr. 112 MacTanly Place Staunton, Virginia 24401 Phone: (540) 885-5174

### Proposal Format — Planning Project

### **Section 1 – Cover Sheet**

**Project Name** 

**Applicant Contact Information** 

**Person Who Prepared this Application** 

**Project Location** 

**Census Tracts Served** 

**Project Funding Summary** 

**DUNS NUMBER** 

### Section 2 – Project Proposal Summary

Using the enclosed template, please complete the Project Proposal Summary. This is limited to two-pages in length. Outputs/Outcome measures must include ones as appropriate from the listing in Appendix B for the relevant ARC Goal Area.

NOTE: The ARC Summary should be completed exactly as requested since it will be submitted to ARC. If it is completed incorrectly, you will be requested to revise it and this step could hold up the submittal of your project to ARC.

# Section 3 – Project Narrative

# Project Support of ARC Goals and Virginia's Objectives and Strategies:

Indicate which of the following four ARC Goals the proposed project will address: 1) Economic Development and Job Creation, 2) Health, Education, and Training, 3) Infrastructure, 4) Appalachian Development Highway System. Further indicate the State Objective (there is one for each goal) to be addressed by the project (there is one for each goal) to be addressed by the project. For example, installing fiber optics to provide a health clinic with telemedicine capabilities, the ARC Goal would be Goal 2: Health, Education, and Training, and the State Objective would be 2.9 "Encourage the use of telemedicine technology to assist in the delivery of rural health care services, to include wellness and prevention efforts." Consult the draft 2007 Virginia ARC Annual Strategy for additional information on the Goals and Virginia's Objectives and Strategies.

### Project Description and Products:

Describe the proposed project. Identify the products that will result from this planning project. Is the project consistent with ARC goals? Does it focus on the expansion or enhancement in the use of telecommunications to improve the economic health of the community? Describe how.

Consult Appendix B for examples of project products (outputs). Output measures must be selected from this list. Additional outputs may be listed, however, each project must select outputs noted in Appendix B. Outputs must be listed using specific and absolute numbers. Percentages may be used to supplement the application, but quantifiable figures MUST be used.

### Project Outcomes and Challenges / Issues to be Addressed:

Detail the specific long-term benefits, or outcomes, of this project. An example of an outcome for a Planning Project is: a determination of the most appropriate telecommunications infrastructure will be completed, leading to the subsequent deployment of recommended technologies (i.e. planning assessments determined that wireless telecommunications is the most viable method of deployment and will be installed to stimulate economic growth.) Indicate why the proposed outcomes are necessary. What is the NEED for the project? What problems will be addressed by this project? Why is ARC TI funding necessary rather than other sources of funding? Consult APPENDIX B for additional examples of project outcomes. Project outcomes may be projected for up to one year after contract termination, but must be tracked if identified.

### Performance Targets and Work Plan:

Create a three column table. In column one, provide the sequence of key events and milestones in accomplishing the project (performance targets), including the identification of project and quantification of project benefits. In column two, indicate the cost that corresponds with that particular milestone. In column three, list the projected start and/or completion dates for each event and milestone.

The established timetable should show implementation within a 12-month period following receipt of a Virginia ARC TI contract. With few exceptions, no timetable should show initiation of project activities, especially those targeting the use of Virginia ARC TI funding, prior to August 2007. This should allow more than enough time for all precontract issues to be resolved between the applicant, DHCD, and ARC. A sample table depicting the performance targets and work plan for an entrepreneurial training program follows:

D 6		<b>5</b>
Performance Target	<u>Cost</u>	Date(s)
Stakeholder meetings	\$ 500	8/15/07
Demand / user assessments	\$ 500	8/15/07 –11/15/07
Physical system design	\$ 6,000	10/15/07 –12/15/07
Management issues and Business Planning	\$ 1,000	<i>1/30/08 –3/30/08</i>
Marketing and Funding Development	\$ 1,000	3/30/08 – 7/14/08

### Project Beneficiaries:

Provide the number of persons to be served within one year of project completion and provide a discussion of the methodology used to derive this number. As this number is used in scoring ARC proposals, DHCD reserves the right to make adjustments to claimed numbers or ask for supplemental information.

### Project Location:

Indicate which locality (or localities) is (are) covered by project benefits and, where possible, the specific location to be impacted by the project as defined by place name, boundaries, building, or other features. For example, "Stone County including the Towns of Railtown and Hollowville".

### Census Tract Information:

Provide map of project service area with census information overlaid or provide list of all census tracts in service area. Census information should be from the 2000 Census. If your project only serves part of a Transitional County, be very clear about which census tracts are included.

### Maps:

Provide a map within at least a 10-mile radius surrounding the applicant organization, with the organization's location and the locations of all project activities clearly marked. Include other maps as necessary. ALL maps should be LEGIBLE and contain a scale which is clearly marked on the map.

### Leveraged Private Investment:

Identify private sector commitments that follow as a result of the completion of this project. Estimates for the leveraged private investment and associated job impacts for a three-year period following the completion of this project should be included. Letters of

commitments by private companies should be included. Leveraged private investment should not be confused with any direct private contribution to the ARC supported project funding (any funds that are actually a part of the project cost).

For example: Amount of private funds invested in relocation to the project area / region by Business X due to the installation of and access to telecommunications / fiber optics.

#### Readiness:

Why is now the appropriate time for this particular planning project to proceed? What efforts have been made previous to the submittal of this proposal to prepare the foundation for enhanced or expanded telecommunications services in the community? Is it related to other community efforts?

### Capacity:

Identify the groups (public, private, etc.) or individuals who have been involved in the effort to enhance or expand telecommunications services to the community. Who will be responsible for seeing that this planning project is completed in a timely fashion? What is this person's title, affiliation, and experience with projects of this kind?

Include letters and other documentation from individuals and organizations who will provide direct support in the implementation of the project. This documentation should detail the nature of the support to be provided. Include, also, general letters and other documentation from individuals and organizations providing passive support ("we support the idea", "we think this would be useful", and so on).

### Related Projects in the Region:

Identify other telecommunications related projects being undertaken by neighboring communities. How does the need for this planning project relate to other similar efforts being undertaken by neighboring communities? Is this proposed effort a duplication of current efforts in neighboring communities? Or does it compliment these other efforts?

### Letters of Benefit Commitment:

Include letters and other documentation which provide confirmation that the project will benefit the number of individuals it is targeting. Applicants are strongly encouraged to solicit letters from proposed beneficiaries. In the case of telecommunications projects, the main beneficiaries would be the end-users—businesses, medical centers, etc...). Letters from potential project partners should be included as evidence of additional project support.

Include letters and other documentation from businesses, organizations, and individuals to provide direct support in the implementation of the project. This documentation should detail the nature of the support to be provided. Include, also, general letters and other documentation from individuals and organizations providing passive support ("we support the idea", "we think this would be useful", and so on).

# Section 4 – Budget Information

### Cost Summary:

Enter the amount of resources to be included in this project in simple table form. Specify the amounts for each of the following categories and the percentage of the total project cost each represents: ARC, Local/Applicant, Other Federal, State, Private, and Non-Profit/Other. In this table, add the amounts in these categories to develop a Total figure and add the percentages to arrive at 100%. THESE AMOUNTS, SOURCES, AND PERCENTAGES SHOULD BE IDENTICAL TO THOSE LISTED IN LATER SECTIONS OF THE PROPOSAL FORMAT. A sample table is as follows:

Source	Amount	Percentage
ARC	\$10,000	50%
Local/Applicant	\$10,000	50%
TOTAL	\$20,000	100%

### Status of Other Funding:

Indicate the current status of all non-ARC funds to be used on the project. List the general categories from the **Project Funding Summary** on this proposal's cover sheet and the specific funding sources under

these categories (Federal – USDA, HUD, and so on; Local – Town, Non-Profit, and so on). SPECIFY THE AMOUNT ANTICIPATED FROM EACH SPECIFIC SOURCE. Provide information on the project's position within the funding cycles

of each source, the anticipated timing for release of each source of funding, the level of funding commitment received to date (firm; not contingent on future approval), and adequate, specific supporting documentation (recent letters, contracts, or resolutions).

### Project Budget:

Using the Budget format from **APPENDIX D** as a guide, construct a project budget.
The budget should, as the name suggests, show **ALL** sources of funding and the use of this funding relative to each **Performance Target**.

### Derivation of Costs / Budget Narrative:

Detail the methodology used to determine each amount listed in the project budget. List each activity and activity component, their related cost estimates, and those unit costs or otherwise which provide the basis for these estimates. Identify the information sources and/or methodologies used to generate these cost estimates and give the dates that the estimates were developed.

Documentation from these information sources in support of the cost estimates should be included. Costs will be reviewed for reasonableness. If there are conditions exerting upward pressure on your costs, please explain.

### Letters of Non-ARC Funding Commitment:

Letters, or other documentation showing a clear level of commitment of non-ARC ABDI resources from the entities responsible for providing such funding. If such commitment is contingent on board

approval, then a copy of the resolution from the board should be included.

#### Cost Documentation:

Include excerpts and analyses from appropriate sources for cost information. Where possible, include cost documentation which originates from reputable, objective, and independent sources.

### Planning District Commission Review:

Copies of Virginia ARC ABDI Proposals

must be provided to the local Planning District Commission (Local Development District). This should be submitted to the PDC no later than September 6, 2006. The purpose of this requirement is to keep the PDC informed of potential projects. The PDCs are also available to assist applicants in developing projects. The PDC role is not to accept, reject, or otherwise screen these proposals.



# PROPOSAL FORMAT — IMPLEMENTATION OR SYSTEM DEVELOPMENT/TECHNICAL SUPPORT

### Section 1 – Cover Sheet

**Project Name** 

**Applicant Contact Information** 

**Person Who Prepared this Application** 

**Project Location** 

**Census Tracts Served** 

**Project Funding Summary** 

**DUNS NUMBER** 

### Section 2 – Project Proposal Summary

Using the enclosed template, please complete the Project Proposal Summary. This is limited to two-pages in length. Outputs/Outcome measures must include ones as appropriate from the listing in Appendix B for the relevant ARC Goal Area.

**NOTE**: The ARC Summary should be completed exactly as requested since it will be submitted to ARC. If it is completed incorrectly, you will be requested to revise it and this step could hold up the submittal of your project to ARC.

# Section 3 – Project Narrative

# Project Support of ARC Goals and Virginia's Objectives and Strategies:

Indicate which of the following four ARC Goals the proposed project will address: 1) Economic Development and Job Creation, 2) Health, Education, and Training, 3) Infrastructure, 4) Appalachian Development Highway System. Further indicate the State Objective (there is one for each goal) to be addressed by the project (there is one for each goal) to be addressed by the project. For example, installing fiber optics to provide a health clinic with telemedicine capabilities, the ARC Goal would be Goal 2: Health, Education, and Training, and the State Objective would be 2.9 "Encourage the use of telemedicine technology to assist in the delivery of rural health care services, to include wellness and prevention efforts." Consult the draft 2007 Virginia ARC Annual Strategy for additional information on the Goals and Virginia's Objectives and Strategies.

### Project Description and Products:

Describe the proposed project. Identify the products that will result from this project. Is the project consistent with ARC goals? Does it focus on the expansion or enhancement in the use of telecommunications to improve the

economic health of the community? Describe how.

Briefly describe the activities to take place during the life of the proposed project for which you are seeking ARC TI funding. What training or assistance efforts will be undertaken? How many businesses are to be assisted and through which programs (and describe each program)? How many jobs will be created or how many new businesses will be created? How many individuals will make use of services related to the telecommunications project? Consult **APPENDIX B** for examples of project Products. With few exceptions, Products should occur within a one year contract period.

Consult Appendix B for examples of project products (outputs). Output measures must be selected from this list. Additional outputs may be listed, however, each project must select outputs noted in Appendix B. Outputs must be listed using specific and absolute numbers. Percentages may be used to supplement the application, but quantifiable figures MUST be used.

### Project Outcomes and Challenges / Issues to be Addressed:

Detail the specific long-term benefits, or outcomes, of this project. An example of an outcome is: Quantifiable diversification of the local economy as the result of increased access to telecommunications. Indicate why the proposed outcomes are necessary. What is the NEED for the project? What problems will be addressed by this project? Relevant data derived from plans, studies,

statistics or surveys should be included (the source should be cited by title, date, and page number. Include the applicants Community Telecommunications Plan). Why is ARC TI funding necessary rather than other sources of funding? Explain how the proposed project would fill a void in current services or programs. Consult **APPENDIX B** for additional examples of project outcomes. Project outcomes may be projected for up to one year after contract termination, but must be tracked if identified.

### Performance Targets and Work Plan:

Create a three column table. In column one, provide the sequence of key events and milestones in accomplishing the project (performance targets), including the identification of project and quantification of project benefits. In column two, indicate the cost that corresponds with that particular milestone. In column three, list the projected start and/or completion dates for each event and milestone.

The established timetable should show implementation within a 12-month period following receipt of an ARC TI contract. With few exceptions, no timetable should show initiation of project activities, especially those targeting the use of ARC TI funding, prior to August 2006. This should allow more than enough time for all precontract issues to be resolved between the applicant, DHCD, and ARC. A sample table depicting the performance targets and work plan for an e-commerce training program follows:

Performance Target	Cost	Date(s)
Solicitation of input on training curriculum	\$ 500	6/15/07
Development of a training curriculum w/ all materials	\$ 3,000	7/30/07
Conduct 7 training sessions	\$ 7,500	8/15/07 - 12/30/07
Counsel trainees on finalization of e-commerce plans	\$ 2,000	<i>1/2/08 – 3/31/08</i>
Provision of technical assistance to 5 businesses	\$ 40,000	2/1/08 -5/31/08
Document success of business growths	\$ 7,000	6/1/08 – 12/30/08

### Project Beneficiaries:

Provide the number of persons to be served within one year of project completion and provide a discussion of the methodology used to derive this number. **Provide attachments in support of these beneficiary claims**. As this number is used in scoring ARC proposals, DHCD reserves the right to make adjustments to claimed numbers or ask for supplemental information.

### **Project Location:**

Indicate which locality (or localities) is (are) covered by project benefits and, where possible, the specific location to be impacted by the project as defined by place name, boundaries, building, or other features. For example, "Stone County including the Towns of Railtown and Hollowville".

### Census Tract Information:

Provide map of project service area with census information overlaid or provide list of all census tracts in service area. Census information should be from the 2000 Census. If your project only serves part of a Transitional County, be very clear about which census tracts are included.

### Maps:

Provide a map within at least a 10-mile radius surrounding the applicant

organization, with the organization's location and the locations of all project activities clearly marked. Include other maps as necessary.

ALL maps should be LEGIBLE and contain a scale which is clearly marked on the map.

### Leveraged Private Investment:

Identify private sector commitments that follow as a result of the completion of this project. Estimates for the leveraged private investment and associated job impacts for a three-year period following the completion of this project should be included. Letters of commitments by private companies should be included. Leveraged private investment should not be confused with any direct private contribution to the ARC supported project funding (any funds that are actually a part of the project cost).

For example: Amount of private funds invested in relocation to the project area / region by Business X due to the installation of and access to telecommunications / fiber optics.

#### Readiness:

Explain how this project is ready to proceed. Why is now the appropriate time to undertake this effort? What steps have been taken to get the applicant and its proposed

beneficiaries ready for this project? Is there an appropriate level of energy and degree of will among the organization and its partners to see this effort through to completion?

### Capacity:

Provide the names and profiles of the individuals who will be responsible for delivering the project's services. Provide the name and profile of the individual with the most project responsibility first, followed by information on the person with the next highest level of responsibility, and continue in this order until all relevant individuals have been identified. Identify the skills, knowledge, and attributes each individual possesses and the value these provide to the overall project effort. Provide information, where applicable, on how the different attributes of the different individuals may be complementary. Identify any roles which have not yet been filled.

Identify those individuals and organizations, including names and telephone numbers, which have committed to support implementation and completion of this project. Provide information on the type and level of support provided and the value of this support to the overall project. Identify any individuals expressing an interest in participating as a project beneficiary, providing, also, their names and telephone numbers.

### Sustainability:

Explain why ARC TI funding is required for this project. Would the ARC TI funding enable a project which would not otherwise be possible? How important is the ARC TI funding to this project? Discuss, also, the plans for continuation of the project following ARC TI funding. How will this project become self-sustaining?

### For Physical Implementation Project: Status of Relationship with Local Telecommunications Provider:

Discuss the current relationship between the proposed project and the local telecommunications provider. Does the provider know about this project? Does the provider currently provide this service to other communities? If so, why isn't the applicant community served? Provide documentation.

### Community Telecommunications Plan:

Include a copy of a plan that has been completed that reflects the need for the proposed telecommunications project. This plan should substantially address the issues as presented in Appendix E. Should this Plan not exist or one similar, the project will not be eligible for Physical Implementation assistance or System Development and Technical Support assistance.

### Letters of Benefit Commitment:

Include letters and other documentation which provide confirmation that the project will benefit the number of individuals it is targeting. Applicants are strongly encouraged to solicit letters from proposed beneficiaries. Letters from potential project partners should be included as evidence of additional project support.

Include letters and other documentation from individuals and organizations to provide direct support in the implementation of the project. This documentation should detail the nature of the support to be provided. Include, also, general letters and other documentation from individuals and organizations providing passive support

("we support the idea", "we think this would be useful", and so on).

## Section 4 – Budget Information

### Cost Summary:

Enter the amount of resources to be included in this project in simple table form. Specify the amounts for each of the following categories and the percentage of the total project cost each represents: ARC, Local/Applicant, Other Federal, State, Private, and Non-Profit/Other. In this table, add the amounts in these categories to develop a Total figure and add the percentages to arrive at 100%. THESE AMOUNTS, SOURCES, AND PERCENTAGES SHOULD BE IDENTICAL TO THOSE LISTED IN LATER SECTIONS OF THE PROPOSAL FORMAT. A sample table is as follows:

<del>-</del>	\$30,000 50%	11	<del>-</del>
	*	*	
urce	ARC	Local/Applicant	<u>Private</u> TOTAL

### Status of Other Funding:

Indicate the current status of all non-ARC funds to be used on the project. List the general categories from the **Project** Funding Summary on this proposal's cover sheet and the specific funding sources under these categories (Federal – USDA, HUD, and so on; Local – Town, Non-Profit, and so on). SPECIFY THE AMOUNT ANTICIPATED FROM EACH SPECIFIC SOURCE. Provide information on the project's position within the funding cycles of each source, the anticipated timing for release of each source of funding, the level of funding commitment received to date (firm; not contingent on future approval), and adequate, specific supporting documentation (recent letters, contracts, or resolutions).

### Project Budget:

Using the Budget format from **APPENDIX D** as a guide, construct a project budget.
The budget should, as the name suggests, show **ALL** sources of funding and the use of this funding relative to each **Performance Target**.

### Derivation of Costs / Budget Narrative:

Detail the methodology used to determine each amount listed in the project budget. List each activity and activity component, their related cost estimates, and those unit costs or otherwise which provide the basis for these estimates. Identify the information sources and/or methodologies used to generate these cost estimates and give the dates that the estimates were developed. Costs will be reviewed for reasonableness. If there are conditions exerting upward pressure on your costs, please explain.

### Letters of Non-ARC Funding Commitment:

Letters, or other documentation, showing a clear level of commitment of non-ARC TI resources from the entities responsible for providing such funding. If such commitment is contingent on board approval, then a copy of the resolution from the board should be included

#### Cost Documentation:

Include excerpts and analyses from appropriate sources for cost information. Where possible, include cost documentation which originates from reputable, objective, and independent sources.

### Planning District Commission Review:

Copies of Virginia ARC ABDI Proposals must be provided to the local Planning District Commission (Local Development District). This should be submitted to the PDC no later than September 6, 2006. The purpose of this requirement is to keep the PDC informed of potential projects. The PDCs are also available to assist applicants in developing projects. The PDC role is not to accept, reject, or otherwise screen these proposals.

### APPENDIX A - PROPOSAL COVER SHEET

Project Name:			
Applicant Contac	t Information:		
Locality/O	rganization Name:		
Address:			
Phone/FAX	X Numbers:		
Contact Per	rson:		
Title:			
Phone/Fax	Numbers of Contact:		
E-mail Add	lress:		
Person Who Prep	ared this Application	1;	
Name:			
Address: _			
Phone/FAX	X Numbers:		
E-mail Add	lress:		
Census Tracts Ser	rved by this Project:		
Project Funding S		Amount	Percentage
Source		Amount	reicentage
Total:			
DUNS Number:			

### **APPENDIX B — PRODUCTS AND OUTCOMES**

### **Goal 1 – Economy**

### Measures:

#### ENTREPRENEURSHIP/BUSINESS INCUBATOR

Output Measur	ement – number of
	participants businesses served / assisted (existing and new)
Outcome Meas	surement – number of
	new businesses created or graduated jobs created jobs retained Leveraged Private Investment participants with improved skills or completed program(such as course with certified skills)
EXPORT	
Output Measur	ement – number of
	participants
Outcome Meas	surement – increase in
	export dollars
HIGH VALUE, HIGH	H WAGE EMPLOYMENT OPPORTUNITIES
Output Measur	ement – number of
	new/revised strategic plans
Outcome Meas	surement – number of
	jobs created jobs retained

### **TELECOMMUNICATIONS**

Output	t Measur	rement – number of
		participants businesses hooking on
Outcor	me Meas	surement – number of
		new telecommunications sites serving 50 clients per week offering telehealth, distance learning, governmental or business applications number of trainees with improved skills miles of infrastructure or new technology deployed
TOURISM D	EVELO	PMENT
Output	t Measur	rement – number of
		businesses assisted
Outcor	me Meas	surement – number of
		jobs created Leveraged Private Investment "new" tourists revenue generated
Goal 1 – Heal	lth a	nd Educations
Measures:		
WORKERS re	eceiving	basic education, skills training, skills upgrading or customized training.
Output	t Measur	rement – number of workers
		participating in skills training activity
Outcor	me Meas	surement – number of workers
		obtained employment retained employment

Output Measur	rement – number of students	
	participating in educational activity	
Outcome Meas	surement – number of students	
	obtained a GED (within 1 year) graduated from high school (at-risk dropouts) completed a school readiness activity and tested on grade level entering kindergarten entered college after high school (within 1 year) entered workforce after participating in school-to-work program (within 1 year) (school/college students)	
TELECOMMUNICA	TIONS	
Output Measur	rement – number of	
	students workers	
Outcome Meas	surement – number of	
	new telecommunications sites serving workers/students per week	
HEALTH CARE PROFESSIONALS RECRUITMENT		
Output Measur	rement – number of	
	health care professionals recruited annual patient office visits	
Outcome Meas	surement – number of	
	patients with improved health care	

STUDENTS participating in school readiness, dropout prevention, school-to-work transition and

GED programs.

#### INTEGRATED HEALTH CARE DELIVERY

Output Measurement – number of

		participants
Outcor	ne Meas	surement – number of
		participants with improved health
C-12 T-C-	4	4
Goal 3 - Infra	istru	cture
Measures:		
WASTE/SEW	ER/WA	ASTE DISPOSAL SYSTEM
0		
Output	Measur	rement – number of
		linear feet
		businesses served
		increase in capacity or storage
Outcor	ne Meas	surement – number of
		households served (new)
		jobs created
		jobs retained
		Leveraged Private Investment
INDUSTRIAL	PARK	/COMMUNITY REVITALIZATION
Output	Measur	rement – number of
		Linear feet installed
		businesses served
		housing units
Outcor	ne Meas	surement – number of
		jobs created
		jobs retained
		housing units
		Leveraged Private Investment

### **TELECOMMUNICATIONS**

Output Meas	surement – number of
	participants
	businesses served
	jobs created / retained
Outcome Mo	easurement – number of
	new telecommunications sites offering telehealth, distance learning, governmental or business applications
	Leveraged Private Investment
Goal 4 – ADHS S  Measures:	
ADHS CORRIDOR	R DEVELOPMENT
Output Meas	surement – number of
	new revised strategic plans
Outcome Mo	easurement – number of
	jobs created
	jobs retained

### **APPENDIX C — PROJECT SUMMARY TEMPLATE**

### (Two page maximum)

Project Title:

Project Grantee: Provide name, address, and contact information, including email.

County(ies) to be Served: List each county and its designation

(e.g. transitional, distressed, etc.)

Basic Agency: Not required for non-construction projects

Goal/Strategy: Identify the primary ARC Goal and State Objective which the

project will address. Specify the State Strategies by number

Purpose: 1-2 sentence statement describing overall purpose of proposed

project

Funding: <u>Amount %'age</u> <u>Source</u>
ARC \$40,000 66 % ARC ABD

State 10,000 16.6 % VEI

Local 10,000 16.6 % Local Government

Total \$60,000 100 %

Description: Description of major activities to be conducted under grant

proposal. The description should address who, what, where, when

and how for each major activity.

Rationale:

Critical circumstances that compel project to be funded

• Local, regional and/or state need for project

• Problems and/or issues that project will alleviate

Benefit:

Results and accomplishments to be derived from project

• Other non-quantifiable benefits (e.g. new partnerships,

improved standard of living, etc.)

Output/Outcome:

• Identify output and outcome measurements (as defined by

ARC, see Appendix B)

• Identify Outcomes of this proposal (as defined by ARC, see

Appendix B)

Leveraged Private Investment:

• Identify anticipated private sector commitments (with associated dollar amounts) and associated job impacts that follow as a result of this project for a three-year period following completion of the project.

### **APPENDIX D — BUDGET FORM**



# APPENDIX E - COMMUNITY TELECOMMUNICATIONS PLANNING GUIDE

June 15, 2006 (The full document is available upon request from DHCD.)

### Overview

Broadband telecommunications infrastructure consists of the equipment and technology that carries information at high speeds between two or more locations. The Virginia Department of Housing and Community Development (DHCD) views broadband telecommunications infrastructure as an essential public utility in the same regard as public water and sewer service. As such, our aim is to prepare and empower communities by providing technical assistance and financing to enable them to "level the playing field" in order to compete with larger urban communities for economic development and expanded social opportunities through the availability of affordable high-speed internet service in their community.

To assist communities plan for broadband telecommunications DHCD has developed this guide. It is a framework for communities who want to investigate their readiness, capacity, and demand for advanced telecommunication infrastructure. This guide is by no means a final solution and should not be viewed as a substitute for qualified telecommunications expertise to assist communities in planning for broadband. Communities must take a comprehensive approach to

telecommunications planning that includes identification of need within the community and the potential impacts that broadband telecommunications infrastructure would produce.

The final product of the planning process will be the development of a Community Telecommunications Plan. The plan should include analyses of existing telecommunications conditions, defining broadband goals and developing action steps to achieve the goals. The desired outcome of this planning effort is to provide a tool for communities to assist in future implementation of the construction of broadband projects that will lead to enhanced educational opportunities, improved medical services, enhanced economic development opportunities, and improved quality of life.

A Community Telecommunications Plan is required by DHCD in order to apply for implementation financing through the Community Development Block Grant program (CDBG). DHCD will only invest implementation monies in "Last Mile" broadband connectivity solutions for business, medical and educational facilities, i.e. the final leg of connectivity from a communications provider to a customer.

The information in this guide lists some of the critical components to explore when developing the plan but certainly does not include everything to be covered. A glossary of terms commonly used when discussing telecommunications in included as **Attachment 1**.

### **Management Team**

The first item to address when starting the planning process is to set up an effective Management Team. This team will provide oversight and direction throughout the planning process including the procurement of and collaborating with consultants and contractors necessary for successful implementation of the broadband telecommunications network. It should be comprised of decision makers and stakeholders representing a cross section of all potential broadband users or beneficiaries. The following is a list of potential fields from which to seek prospective members.

- Local government
- Economic development professional
- Public schools
- Higher education institutions
- Workforce development
- Health care
  - o Hospital
  - Medical clinics
  - Private medical practice
- Industry/Manufacturing
- Retail and commercial business
- Small business/entrepreneurs
- Service sector
  - Banking
  - o Insurance
- Professional
- o Legal
- Engineering

- o Accounting
- Local telephone provider
- Internet service providers
- Police dept. and emergency services

Another member of the Management Team should be the telecommunications expert (usually a private consultant) that is hired to assist in carrying out the project. This person should have experience not only in planning and analysis but also telecommunications and technology. The most qualified person or firm that can do a comprehensive job should be procured. A sample Request for Proposals (RFP) for a telecommunications consultant is provided in **Attachment 2**.

It is critical that there is continued involvement from the members of the management team even after the planning process is complete. The members should be committed to continue pursuing achievement of the goals that are identified in the Community Telecommunications Plan.

### **Needs Assessment**

The current status of broadband telecommunications availability as well as the current and future telecommunication needs of the community must be evaluated. Using various methods of assessment tools including surveys, questionnaires, and inperson interviews, the grantee will determine the telecommunications needs and usage in the community (Attachment 3). This includes identifying all current telecommunications providers such as the incumbent telephone service carrier and existing internet service providers (ISP), their broadband capabilities, the location of their infrastructure and the current rates they

are charging for services. In addition, future plans for broadband deployment by current providers as well as proposed rates, types of services to be offered, technical support and how it all relates to the particular community and the surrounding region should be determined.

Demand needs to be assessed. Demand consists of those telecommunication services used and projected to be used by current and future customers. Customer needs must be identified and quantified. In addition, it needs to be determined to what extent customers are satisfied with their current service, what are their technical support needs, and do they need or want broadband. The assessment should concentrate on the businesses, schools, and health care facilities, identifying the types of applications used and number of employees and users. However, residential areas should not be excluded because there could be several home-based businesses identified. Identifying and quantifying these will reveal the potential for a revenue source for any future publicly owned networks. If a potential user does need broadband, the types of applications they would use, the amount of bandwidth they will need including how many would need a hardwired, secure connection and what they would be willing to pay for broadband needs to be determined.

The grantee should include in the assessment an income survey to determine low-and moderate income status of potential beneficiaries and/or determine the economic and physical blight of a potential redevelopment area, i.e. a downtown in need of revitalization. Documentation of one or both of these two elements will determine eligibility for future telecommunications planning and implementation efforts for CDBG funding.

Once the data is collected an analysis of the gaps between existing telecommunications services in relation to demand and broadband availability should be performed. Trends in the use of broadband by existing and potential customers as well as any other pertinent trends need to be identified. User rates need to be evaluated to determine affordability. Projections of potential broadband service need to be developed and the community's efforts related to on-going and future regional telecommunication efforts of other entities or communities should be examined.

The data obtained from the assessment should be plotted on a GIS map showing concentrated areas of need in both the business district and surrounding areas, the service providers and their infrastructure, and blighted areas. The data should be so that a determination can be made as to whether there is sufficient critical mass to justify public investment in physical infrastructure that will be self-sustaining.

# **Community Education and Training**

To expand demand for a broadband network requires effective community education and training. Broadband education development strategies and end user application identification is key to ensuring the success of a community network. This component should investigate current programs available in the community, denote training gaps, and research and identify potential training partners to provide additional broadband education programs. These partners could include higher education institutions, the Virginia Electronic Commerce Technology Center (VECTEC),

Virginia's Center for Innovative Technology (CIT) and other entities that may serve as resources to help communities assess and develop strategies for expanding broadband education program availability. Increasing community awareness and education through local workshops and seminars is one method of building demand.

Examples of two excellent courses for general broadband education include Broadband 101-Untangling the Wires offered by CIT and the Knowledge Economy Readiness Roadshow by Design Nine, Inc. The *Broadband 101* workshop is designed to help broadband novices to understand terminology, attain understanding of technologies, gain awareness of broadband applications, and learn safeguards of network security. The Knowledge Economy Roadshow is designed to help jumpstart community broadband projects by assisting local leaders in understanding the linkages between broadband and economic development.

In addition to education, training programs should also be developed that will increase the potential for people to obtain jobs in fields that utilize broadband. This can be accomplished by first identifying the specific applications that require broadband to work. Some of these are listed below:

- Data transfer;
- Voice over Internet Protocol (VoIP);
- Video on Demand;
- Online gaming;
- Video conferencing;
- Webcasting;
- Distance Education;
- Online Auctions:
- Video Tele-medicine:
- Agriculture Management; and

 Geographic Information Systems (GIS).

Practical applications that require highspeed connectivity must be cultivated in order to build demand for community-based broadband infrastructure. Part of the planning process must include outlining specialized training on specific courses and skills. The Virginia Community College system and Higher Education Centers offer workforce training to assist individuals in gaining the necessary skills to find jobs in technology and broadband related fields. VECTEC regularly offers mini-courses and seminars on application specific training including website design, internet security, database development, electronic marketing, and search engine optimization.

In conjunction with training and education there should also be emphasis placed on entrepreneurship development. Statistics indicate that 75% to 90% of all jobs created are in small businesses. Broadband availability will provide an opportunity to encourage potential businesses to startup and grow.

### **Broadband Infrastructure**

DHCD only invests in implementation projects that address "Last Mile" connectivity solutions. This component should provide a variety of options for achieving this objective. The planning for this should be "technology neutral", i.e. not skewed to favor one technology over another. In addition, the planning should be based on community needs that relate to economic development, education and health care. Before financing for construction of broadband wiring can be attainable the community must know what

its broadband telecommunications needs are and the type of infrastructure needed to best address those needs.

It is likely that a telecommunications professional, typically an engineer, will be needed to prepare the preliminary engineering design for the recommended community network. The engineer should utilize information from the needs assessment and potential users in order to identify elements that could impact the design including specific bandwidth requirements and redundancy needs. The design should outline the type of installation (fiber-optic cable [aerial or buried], wireless or other state-of-the-art technology), identify utility pole attachments, develop network electronics specifications and sites to house them (co-location facility), and include preliminary cost estimates for construction of the proposed solutions. The design should be plotted using GIS mapping showing existing telecommunications infrastructure, public and private rights-ofway, and proposed routes of "Last Mile" solutions. Recommendations to reach outlying areas and remote sites should also be included. Depending on the size of a project area, a phased approach to infrastructure projects may be necessary.

# **Network Organization and Operation**

This component should provide a comprehensive study of the possible structures in terms of organization and ownership for a proposed broadband infrastructure network. All possible scenarios should be investigated including, but not limited to, locality owned and operated networks, public-private partnerships, lease-hold agreements, and

cooperatives. Part of this analysis must include research of federal, state, and local regulatory and legal issues. The establishment of standards and rules for usage by entities wanting to use the network, e.g. re-selling bandwidth, decency issues, etc. should be evaluated.

A Business Plan should be developed as part of this component. Identified in the plan should be anticipated legal requirements, operational and maintenance (O&M) requirements and associated staffing necessary to meet O&M requirements and projected operational costs and revenues. A rate structure should be developed that will generate revenue sufficient to cover the expenses associated with maintenance and bandwidth while allowing the entity to sustain itself. Information from potential users should be analyzed to determine the need for training, consultation and technical support and how this will impact the business plan.

In addition, all service providers in the community should be identified and their willingness to be a provider on the network needs to be determined. To facilitate this process and garner interest, user agreements should be obtained by the locality to illustrate the extent of the projected customer base (Attachment 4).

### **Funding Strategies**

If it is determined that the need and demand for broadband telecommunications is sufficient to justify installation of a system, it is necessary to examine ways to finance that effort. This evaluation should take into account the availability and relevance of particular financing sources including governmental and private resources. The evaluation needs to assess what various sources of funds can and should pay for, i.e.,

physical infrastructure, education programs and/or operational support. One recommended strategy for implementation may be to prioritize and phase projects and address how will that impact various funding sources. Communities should be comprehensive in their search for financing to implement potential projects. In addition to Community Development Block Grant (CDBG) funds this evaluation should investigate other known sources of funding including the Economic Development Administration (EDA), the Federal Communications Commission (FCC), the USDA Rural Utilities Service and private foundations. Communities should not limit themselves to searching solely in telecommunications-related organizations. Some government agencies have telecommunication funding that is part of other areas such as health, education and public safety.

### **Marketing the Network**

Another element that is essential to achieving a successful network is marketing. Marketing here refers to showcasing a community's assets, i.e. broadband, in a way that attracts industry and new residents. One way this can be accomplished is to have a good Community Portal or Website. The site content should be updated frequently and relate to every demographic. Information about community events, schools, church schedules, and public meetings are just a few of the things that can be highlighted. The portal can also be utilized as a vehicle for education and training programs such as e-commerce and distance learning.

A community broadband network is also an economic development tool that can assist in

recruiting new businesses from outside the community. A majority of companies wanting to locate or expand make their first cuts from how much current information there is on the community portal. In addition to standard information such as physical infrastructure and population, websites that showcase a sense of community and high quality of life will attract and keep good employers.

A good publicity campaign should be a part of your overall marketing effort. In addition to a good community portal the media can be a big help. Invite the newspaper and television to meetings and allow them to draft a story that publicizes the hard work of a community broadband initiative. A concentrated push to get the word out to local citizens will act as a catalyst to boost attendance at education and training events as well as increase use of the community portal.

### **Conclusion**

While the material contained in this guide is not all inclusive, it is intended to provide basic information to help communities begin the process of developing a broadband telecommunications strategy. The most difficult challenge is overcoming fears of the unknown, getting out of the current comfort zone and embracing something new. Once citizens realize the benefits that can be gained from such an effort, it will move the community forward to remain on par with other localities in the 21<sup>st</sup> century.